

Claims

I claim:

1. A system for delaying activation of a battery-powered electrical device, intended to operate remotely in an environment in which a pH value changes from a first value to a second value, comprising:

    a housing defining an interior space and having an exterior surface;

    a magnetic field source proximally associated with said housing, said magnetic field source being separable from said housing upon exposure to an environment having a pH value equal to said second value;

    a normally closed electrical circuit disposed in said housing; said circuit having a battery connected in series with an electrically powered device, whereby said electrically powered device is powered by said battery upon closing of said circuit;

    said circuit having switch means sensitive to the presence of a magnetic field associated with said magnetic field source; said switch means operable to open said circuit in the presence of said magnetic field and to close said circuit in the absence of said magnetic field;

    whereby when said housing encounters an environment having a pH value equal to said second value, said magnetic field source separates from said housing and said circuit closes, powering said electrically powered device.

2. A system for delaying activation of a battery-powered electrical device, as in Claim 1, wherein said magnetic field source is fixed to said exterior surface by a coating which is dissolvable upon exposure to an environment having a pH value equal to said second value.
3. A system for delaying activation of a battery-powered electrical device, as in Claim 2, wherein said magnetic field source comprises a magnet fixed to said exterior surface by said coating.
4. A system for delaying activation of a battery-powered electrical device, as in Claim 3, wherein said magnet is disposed in a dimple defined in said exterior surface.
5. A system for delaying activation of a battery-powered electrical device, as in Claim 2, wherein said coating comprises a mixture of pH-sensitive material and magnetizable material, which mixture may be magnetized.
6. A system for delaying activation of a battery-powered electrical device, as in Claim 1, wherein said switch means comprises a reed switch biased open, but closed when influenced by said magnetic field.
7. A system for delaying activation of a battery-powered electrical device, as in Claim 1, wherein said switch means comprises a Hall effect device, said magnetic field holding said Hall effect device in a nonconducting mode, so that when said magnetic field is separated from said housing, said Hall effect

device transitions to a conducting mode, thereby closing the circuit and powering the electrically powered device.

8. A system for delaying activation of a battery-powered electrical device, as in Claim 7, wherein said Hall effect device is a Hall effect transistor.

9. A system for delaying activation of a battery-powered electrical device, as in Claim 1, wherein said housing is a swallowable capsule.

10. A system for delaying activation of a battery-powered electrical device, as in Claim 1, wherein said electrical device includes a video camera.